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LONG TERM ARRANGEMENTS FOR THE DEVELOPMENT OF THE PETROCHEMICAL INDUSTRY IN DEVELOPING COUNTRIES

Issue Paper*

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VI. THE ISSUES

I. Background

1. The Second Consultation of the Petrochemical Industry, held in Istanbul, Turkey, 22-26 June 1981, recommended that UNIDO Secretariat: (a) examines the various forms of long-term arrangements for the development of the petrochemical industry in the developing countries and adapt the existing general guidelines on joint ventures; and (b), in co-operation with the parties concerned, develop a programme of co-operation among developing countries 1/

2. The seminar on the petrochemical industry jointly organized by UNIDO, the Organization of Petroleum Exporting Countries (OPEC) and the OPEC Fund for International Development also emphasized the need to examine existing co-operation arrangements with a view to formulating guidelines for such co-operations. 2/ To this end an Advisory Panel of Experts formed by that seminar, convened three separate meetings. An additional meeting was organized between members of the Advisory Panel and representatives of the petrochemical industry in the developed countries. 3/

3. The activities undertaken in pursuit of the recommendations pertaining to this issue have been divided and grouped under four different headings in this paper, namely:

a. world supply of and demand for petrochemicals;

b. survey and analysis of joint venture arrangements in the petrochemical industry;

1/ Report on Second Consultation on the Petrochemical Industry ID/WG/7/Rev.1 para.3

2/ Report on OPEC/UNIDO/OPEC Fund Seminar on Co-operation among Developing Countries in Petrochemical Industries, page 8

3/ Ibid, page 16

c. co-operation among developing countries to promote the development of the petrochemical industry; and

d. possibilities for global co-operation in petrochemicals

II. World supply and demand for petrochemicals

4. In order to collect accurate as well as independent information to enable inter-alia realistic projections for future supply of and demand for petrochemicals, a comprehensive data base has been compiled by UNIDO Secretariat. The first draft of this data base covers 25 major petrochemical products with a geographic coverage of some 110 countries in the form of statistical time series starting in 1970. This data base is subject to continuous expansion, revision and up-dating.It is currently structured on a country as well as on a product basis and will be incorporated in a computerized data management system.

5. The information contained in the data base has already proven indispensable in the preparation of various background, policy and issue papers in addition to providing valuable support for the purpose of project formulation in technical assistance activities. In a broader sense, the data base can be perceived as a valuable support of all work deployed with the objective of promoting the establishment of petrochemical industry in the developing countries.

6. The Expert Group meetings such as the Advisory Panel on Petrochemicals and Expert Group on International Co-operation in this sector, convened after the Second Consultation on the Petrochemical Industry to assist in implementing its recommendations, recognized the value and relevance of the data base and have emphasized the necessity of continuing this effort.

III. Survey and analysis of joint-venture arrangements in the petrochemical industry

7. In order to provide substantive and original inputs for the preparation of guidelines on joint ventures in the petrochemical industry, some 50 individual cases were studied. The objective of the survey, on the basis of case studies, was to adequately reflect the actual experience emanating from operating joint venture arrangements. The information thus obtained is treated as confidential, which although fully preserved in the guidelines nevertheless, convey the salient features of the joint ventures. The document contains a synopsis of views expressed by those responsible for existing joint ventures on a regional basis. The findings of the survey are represented in a matrix form, including the identification of a set of objectives, problem areas, role of government, conditions for success for joint ventures etc. The requirements for the creation of joint ventures in general, and for those between the developing countries in particular, are closely examined.

8. The basic methodology employed in drawing-up the guidelines rests on the potential of deducing meaningful conclusions from past experiences. This approach is also intended to eneble a better understanding of the evolution of the joint venture concept in the petrochemical industry and its interaction with the current process of restructuring. Likely trends for future pattern of international joint ventures might equally be construed from the evaluation in respect to existing arrangements. The various components of joint venture agreements e.g. financing, technology, market, organization, feedstocks, infrastructure, planning, technical assistance, training, R and D and finally legal considerations have also been delt with from the technical, commercial and corporate perspectives.

IV. Co-operation among developing countries to promote the development of the petrochemical industry

9. Accurate and reliable information is a basic prerequisite to all forms of co-operation between developing countries in the petrochemical industry. To this effect, a comprehensive information gathering and evaluation effort has been launched by the UNIDO Secretariat on three fronts:

a. a data base on the supply and demand for 25 major petrochemical products starting with 1970 time series covering some 110 countries;

b. a directory of technological capabilities of the developing countries in the petrochemical industry; and

c. a survey of new process technologies having a direct bearing on the petrochemical industries of developing countries.

10. The second meeting of the Advisory Panel on Petrochemicals identified the opportunities for co-operation among developing countries. For this purpose, a system was designed where all individual elements inherent in this co-operation were identified. The Panel then focused its attention on the main factors and conditions for the successful contribution of that particular element to the overall and effective partnership among developing countries in promoting their petrochemical industries 4/.

11. In addition to the specific factors thus identified as influencing the opportunities for co-operation among developing countries in this industry, the Advisory Panel also considered the make-up of a general environment conducive to such arrangements. They underlined the importance of adequate channels of communication between the petrochemical entities of the developing countries, since information was judged crucial in fostering the desired co-operation.

4/ Report on Second Meeting of the Advisory Panel on Petrochemicals, Annex 2

12. The second area exerting an appreciable influence on co-operation concernes the need to undertake substantial efforts for confidence building and promoting mutual good-will among business partners. The reliability to honour commitments based on competence and experience has to be convincingly demonstrated.

13. Socio-economic stability and preparedness for continued co-operation in conjunction with an ability to adapt to evolving circumstances was considered another major element for successful business formations.

14. Finally, the availability of sufficient capital funds was recognized, as a precondition for initiating many joint activities among the developing countries in the petrochemical sector. The Panel concluded that, regrettably, sound business propositions, involving South-South co-operation, increasingly encounter difficulties in securing adequate packages from the established sources of funds.

V. Possibilities of global co-operation in petrochemicals

15. On the recommendation of the Second Consultation on the Petrochemical Industry, the first expert group meeting on international co-operation in this sector was convened by UNIDO, in Vienna from 19 to 21 September 1984.

The deliberations of the experts were organized around three main headings:

a. opportunities opened by the global restructuring of the petrochemical industry

b. basis for the promotion of international co-operation

c. activities required to prepare and implement schemes of international co-operation

16. It was agreed among the experts that the difficult adjustment process facing the world petrochemical industry, necessitates, inter alia, close co-operation, up-to-date information systems, cross-sectoral coordination, realistic supply and demand projections, rational investment decisions, availability of technology, know-how and services, at global, regional and national levels.

17. This could be best achieved by elaborating package-type systems applied regionally. Education of both developed and developing countries to increase their awareness of global possibilities in the sector, would also greatly assist in harmonizing the global petrochemical operations in the utilization of available resources in a rational, economic and realistic manner.

18. The experts also concurred that government policies, especially in developing countries, provide an important framework for business evaluation and ultimately project profitability. Legislation pertaining to joint ventures, foreign investment, capital repatriation, fiscal incentives, tariff structure, pricing policy etc. are all crucial in attracting foreign participation in the petrochemical industry.

19. Up-to-date information about factors such as supply and demand, capacities, export and import potential, technology improvements, national policies, intersectoral linkages etc. were considered another indispensible basis for international co-operation and where UNIDO could play a leading role in the provision of such data.

20. UNIDO was equally requested to organize additional meetings of the responsible managers of the industry from both groups of countries in order to sensitize them to the many opportunities for international co-operation that exist but remain largely untapped. Exchange of experience was also felt in great need in promoting schemes of co-operation and in avoiding the creation of non-viable petrochemical projects.

21. One major impediment to the continued expansion of the sector in developing countries was, as expressed by a consensus, wide-spread inadequacies in market research and development. To remedy this situation would, apart from domestic implications, also remove a serious obstacle in the way of regional or international co-operation.

VI. The issues

22. Long-term arrangements for the development of the petrochemical industry in developing countries obviously encompass an extremely large and varied field of activities. The constituent elements corresponding to this umbrella-definition have been individually identified and discussed by three meetings of the Advisory Panel on Petrochemicals and the First Expert Group Meeting on international co-operation in this sector.

23. Two components, namely an analysis of joint venture arrangements and the creation of a petrochemical data base have been implemented by UNIDO secretariat, to be reported to the Consultation.

Additional work done by the secretariat and to be presented to the Consultation as background documents concerns:

- A global evaluation of the petrochemical industry and the new opportunities available in its future development;

- A comprehensive market analysis of the industry indicating trends with respect to trade and pricing policies, non-traditional forms of trade including buy-back and countertrade and their influence on the industry;

- A special study on the developmental and legal aspects involved in gaining access to technology improvements.

Among the other questions considered within the framework of long-term arrangements by the first expert group meeting, preliminary investigations relate to research and development in the industry and measures necessary to promote down-stream operations in the petrochemical industries of developing countries. These two questions are being presented as separate Issues to the Third Consultation on the Petrochemical Industry.

24. In addition, several important questions like financing, marketing, technology transfer, training, operational aspects etc. also warrant a closer scrutiny. In view of the limited resources at the disposal of the organization, a selective approach in tackling the more relevant aspects of problem areas inhibiting the development of the industry in developing countries is necessary.

25. To this effect, the Consultation is invited to consider some of these questions considered important which could be further developed by the UNIDO Secretariat. They could be grouped as follows:

a. Activities related to the creation of a central data base on the petrochemical industry in UNIDO: data acquisition; organization of data, interaction with national and regional data centres, forms of data services, etc.

b. Activities related to confidence building measures: Organization of workshops/seminars/meetings/training programmes, etc. to exchange experience in all fields related to the petrochemical industry, establishment of regional associations, technology clubs, etc.

d. Activities related to in-depth analysis of opportunities for South/South co-operations in petrochemical industries such as regional survey of markets, resources, existing fora of industrial co-operation, availability of financing, etc.,

e. Studies related to analysis/guidelines for government policies, facilities, programmes etc. conducive to the development of petrochemical industries and

d. Activities related to gaining a better understanding of market development, marketing strategies, market services, market intelligence, etc.

The future development of petrochemical industry in developing countries will be facilitated by the progress achieved in these vital fields, which have been somewhat neglected in the past. Obviously the other activities of UNIDO aimed at the promotion of the industry will be continued.